



Switching automation light grids ELG, ELG Short Range

ELG3-0210N513



Model Name > [ELG3-0210N513](#)
Part No. > [1052378](#)



Illustration may differ

At a glance

- Up to 16 beams with 10 mm and 112 with 30 mm beam separation
- Range up to 5 m
- Potentiometer for sensitivity setting
- Ambient light up to 150,000 lux
- Tough, aluminum housing
- PNP/NPN output and a test input
- Optical synchronization

Your benefits

- Efficient and effective way to combine multiple sensors in one housing with one connector
- Simple commissioning thanks to a larger optical aperture angle and manual fine adjustment option
- Optical synchronization enables quick installation and cost-effective connection
- The ELG Short Range reliably detects objects, even under challenging ambient conditions



Features

Technology:	Sender/receiver
Task:	Switching light grid
Minimum detectable object (MDO):	Cross beam: ≥ 20 mm ... 35 mm
Beam separation:	30 mm
Number of beams:	8
Detection height:	210 mm
Evaluation beams:	Multiple scan

Performance

Maximum range:	3 m
Maximum range (PL150):	0 m
Minimum range:	≥ 0 mm
Working range:	2 m
Response time ¹⁾ :	Parallel beam 84 ms

¹⁾ With resistive load

Interfaces

Output type: 2 x NPN (Q and /Q)
Connection type: Connector M12, 4-pin
Test input: PNP

Mechanics/electronics

Wave length: 880 nm
Supply voltage V_s ¹⁾: DC 15 V ... 30 V
Power consumption sender²⁾: < 100 mA
Power consumption receiver³⁾: < 100 mA
Ripple: < 5 Vpp
Output current $I_{max.}$: 100 mA
Output load capacitive: 100 nF
Output load inductive: 1 H
Initialization time: 1 s
Dimensions (W x H x D): 34 mm x 286 mm x 29 mm
Housing material: Aluminum
Indication: LED
Enclosure rating: IP 65
Circuit protection: Output Q short-circuit protected
Interference suppression
VS connections reverse-polarity protected

Weight: 1,000 g
Front screen: PMMA
Output mode⁴⁾: Q dark switching
Switching frequency: 250 kHz
Synchronization: Optical

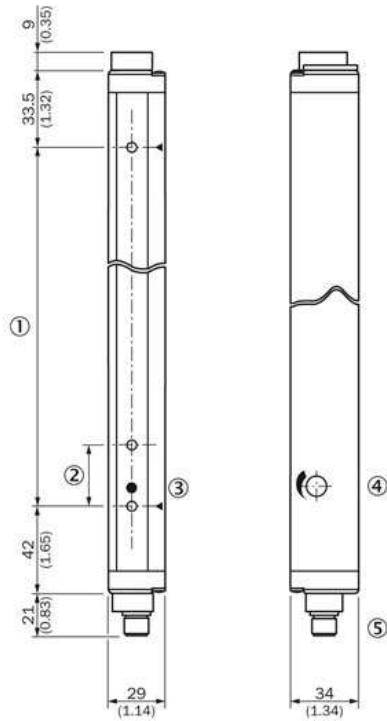
1) 2) 3) Typical value 4) Q = active in case one beam is interrupted, /Q = active in case all beam are free

Ambient data

Protection class: III
EMC: EN 60947-5-2
Ambient temperature: Operation: -25 ... +55 °C
Storage: -40 ... +70 °C
Vibration resistance: 5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load: 10 g/DIN EN 60068-2-29/16 ms
Ambient light immunity: Indirect: ≤ 150,000 lx¹⁾

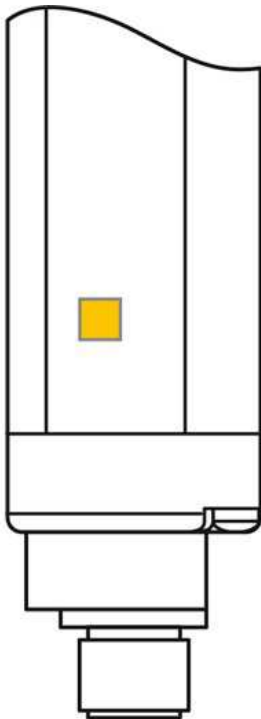
1) Sunlight

Dimensional drawing

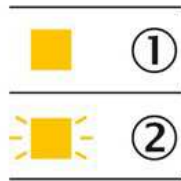


- |1| Detection height
- |2| Beam spacing ELG3: 30 mm
- |3| Status indicator (ELGE)/Power on (ELGS)
- |4| Sensitivity adjustment
- |5| Connector M12, 4-pin

LED display receiver



- |1| No object in the light path
- |2| Pollution indication



LED display sender



|1| Supply voltage



Connection type and diagram



|1| not connected

Sender



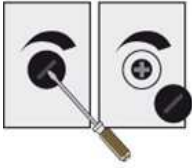
Receiver



Special functions

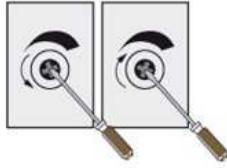
Sensitivity adjustment

1. Remove cap



Remove cap with screw driver.

2. Potentiometer adjustment

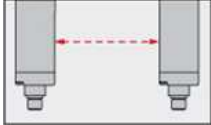


Turn left = for a lower range.
Turn right = for a higher range.

Sensitivity adjustment



Optical synchronisation



The light grid communicates via the light beams. A cable is not necessary for the optical synchronisation.

Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com